

Product Component Clarification

Dear Inventor,

I am Chief Technical Officer, Corwin K. Osborne. Our company has been given the task to review your product from an engineering viewpoint. This research of the mechanical, structural, and functional features of your idea is an important part of the engineering effort to provide the proper presentation to industry. To this end, we have analyzed the critical aspects of your innovation as if we were to be the manufacturer.

My staff and I have strived to visualize and effectively illustrate the 4 key factors, which you identified in your engagement letter and Record of Disclosure. Documentation of these key points will help make the most favorable impression on the manufacturers who may consider your product for licensing (production, marketing, royalty payment, etc.) or a direct buy-out.

Please understand that this Product Component Clarification, (PCC), is just one in many steps towards helping a manufacturer visualize your invention's design, structure, and function as a product. Our professionals at Consulting Engineers of Scottsdale understand that you, as the inventor, believe that your product is extremely feasible and potentially marketable. With this in mind, we feel the attached Product Component Clarification will be helpful in the presentation of your innovation to the appropriate industry.

We appreciate the opportunity to provide engineering services to you and wish you success in your endeavor.

Respectfully yours,

Corwin K. Osborne
Chief Technical Officer

PRODUCT COMPONENT CLARIFICATION

INVENTION NAME:	Texas Twister	DATE: 05/04/01
INVENTOR'S NAME:	Tom J. Holbrook III	Rev #: A Date: 05/21/01
FILE NUMBER:	MVFP-185-SA	STATUS: Patent Pending

The "Texas Twister" is an innovative pair of pliers, which have been designed to help fishermen secure hooks, make eyelets, and attach swivels in a machine like manner when single strand wire leaders are used. The product incorporates a twisting feature that provides a method to terminate the wire leaders and not degrade the strength of the attachment. This twisting function creates a machine like wind termination on the wire leader and does it quickly so no time is lost in re-rigging. The product is manufactured from stainless steel, anodized aluminum, and brass so it will not rust in the salt or fresh water environment. The product also incorporates wire cutters and a crimping section for 4 different diameters of small multi-strand cable leader ferrules. The invention is illustrated in the four drawings of the key points as explained to us in the documentation.

Drawing 1: Side View of Texas Twister

- (1) Flat jaws for gripping wire to make leader twist; these jaws grip the single strand leader cable when the operator squeezes the handles closed and inserts the locking pin, which hold the jaws shut.
- (2) Hinge pin.
- (3) Non slip molded grips; these are molded using urethane rubber and attached to the handles during assembly.
- (4) Twist mechanism; this is shown in detail in block 2 of this illustration. Pulling on the knobbed end provides the twisting action to wrap the leader properly.
- (5) Locking pin mating holes; the locking pin is inserted in these holes.
- (6) Forged stainless steel handles and jaws; these and all other stainless steel parts in the product are manufactured using 17-4PH alloy.
- (7) Cutter openings; these provide a way to cut multi-strand cable.
- (8) Crimper section for 4 different diameters; this provides a crimp for small diameter multi-strand cable ferrules.

Drawing 2: Exploded View of Twister Components

- (9) Cap; this plastic cap terminates the anodized aluminum barrel, preventing contaminants from entering the twister tube.
- (10) Clip; this holds the twister barrel and the locking pin to the handle.
- (11) Nut; this is fabricated from alloy 464 unleaded naval brass. It is fabricated from hexagonal rod stock using screw machine techniques.
- (12) Barrel; this is fabricated from alloy 6061 aluminum thin wall tubing. The end is machined to accept the brass nut. The completed part is deburred and then hard anodized for additional corrosion protection.
- (13) End; this is fabricated from 17-4PH stainless steel alloy rod stock using screw machine techniques.

- (14) Twister rod; this is fabricated from 17-4PH stainless steel alloy rod stock using CNC machining techniques. This rod is attached to the end and rotates through the matching brass nut to provide the twisting action during use.
- (15) Roll pin; these are commercially available roll pins. They are fabricated from 302 stainless steel alloy.
- (16) Spring; this is a custom spring wound using 17-4PH stainless steel alloy wire stock.
- (17) Roll pin; these are commercially available roll pins. They are fabricated from 302 stainless steel alloy.
- (18) Washer; this is this is fabricated from 17-4PH stainless steel alloy rod stock using screw machine techniques.

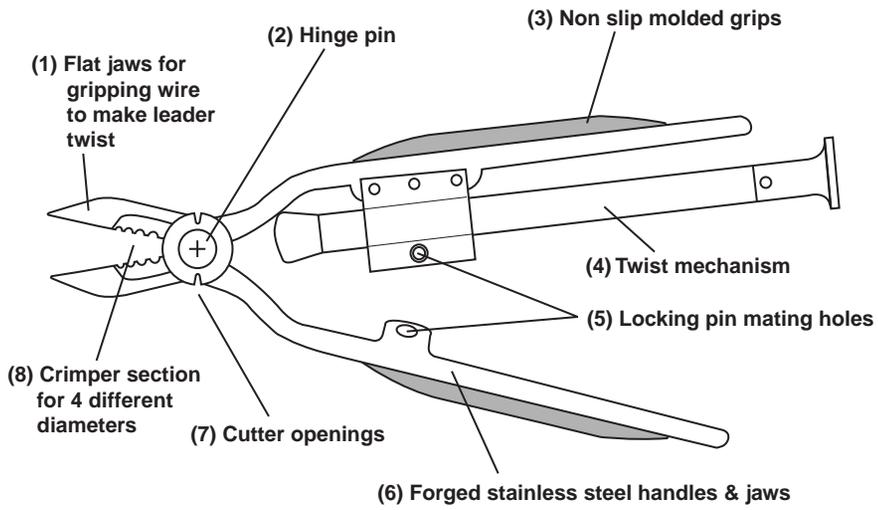
Drawing 3: Pulling Pin Detail

- (19) Pulling pin base; this is fabricated from 17-4PH stainless steel alloy sheet stock using production CNC machining techniques.
- (20) Mounting holes; these are used to permanently mount the pulling pin to the rigging table or other surface, if desired.
- (21) Pulling pin; this is fabricated from 17-4PH stainless steel alloy rod stock using screw machine techniques. The fabricated part is inserted in an interference fit hole in the pulling pin base and staked with a waterproof adhesive so it will not turn.

Drawing 4: Wire Leader Wrap on Hook after Texas Twister Use

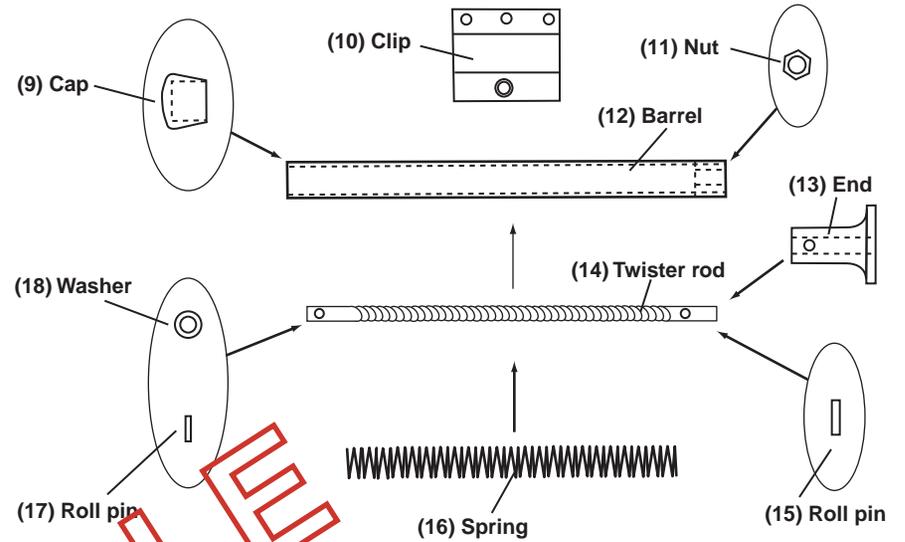
- (22) Hook.
- (23) Hook eye.
- (24) Machine like wrap; this is fabricated using the “Texas Twister”. See the Disclosure Document illustrations for the use instructions.
- (25) Wire leader loop; the strength of the single strand wire leader termination is maximized when the “Texas Twister” is used.

My staff and I have illustrated the 4 key factors, which you identified in your Disclosure Documentation. The illustration of these key points will make the most favorable impression on the manufacturers who may consider your product for licensing (production, marketing, royalty payment, etc.) or a direct buy out.



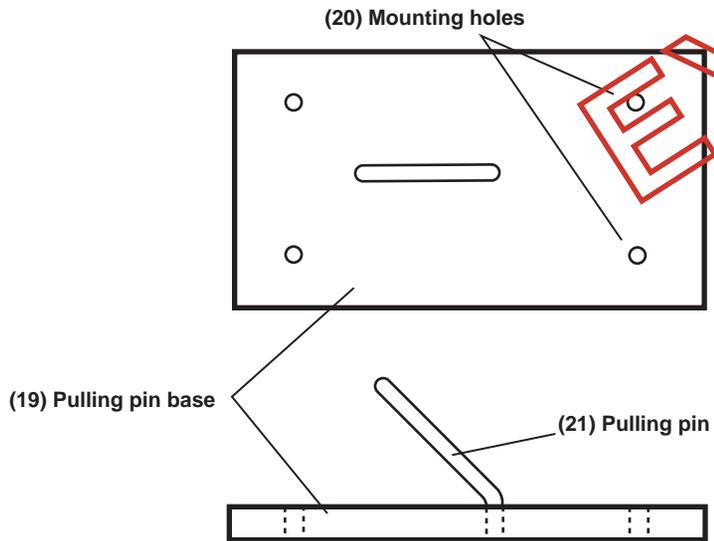
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SIDE VIEW OF TEXAS TWISTER



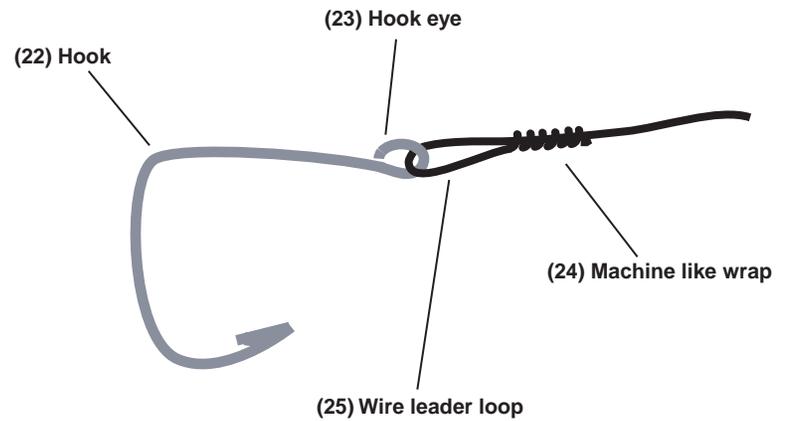
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EXPLODED VIEW OF TWISTER COMPONENTS



3

PULLING PIN DETAIL



4

WIRE LEADER WRAP ON HOOK AFTER TEXAS TWISTER USE